PRODUCT SPECIFICATION

PRODUCT	PROPERTY	MEASUREMENT
POLYPLAST	S.G.	1,04
	Viscosity	95ku
	Solids	52 +/_ 2%
	Appearance	Milky white liquid
POLYPLAST 'W'	S.G.	1
	Viscosity	61ku
	Solids	39 +/_ 2%
	Appearance	Milky white liquid
POLYPLAST 'C'	S.G.	1
	Viscosity	60ku
	Solids	47 +/_ 2%
	Appearance	Milky white liquid

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ABP BUILDING PRODUCTS

Specialists in Energy Efficient Building Solutions

PRODUCT DATA SHEET

POLYPLAST
EXPANDED POLYSTYRENE PLASTER SYSTEM

INTRODUCTION

Whilst expanded polystyrene (EPS) in use has many excellent attributes it often needs ancillary products such as plasters, coatings and glues to ensure its successful application in the building industry.

Polyplast plaster provides protection and impact resistance to EPS used in applications such as walls, ceilings and mouldings.

PRODUCT DESCRIPTION

Polyplast is a combination of water based acrylics and short length fibre that when mixed with plaster sand forms a workable plaster mix that is easy to apply to EPS, does not shrink or stress crack, has excellent adhesion, is long lasting and provides the necessary impact resistance.

There are 3 products in the range:

POLYPLAST - which is most commonly used at a standard mix ratio of 1 part Polyplast to 10 parts plaster sand.

POLYPLAST 'C' - uses a different, cement compatible, acrylic resin system to allow cement addition to the mix to speed up the drying. Mix ratio is 1 part Polyplast 'C' to 1 part cement to 10 parts plaster sand.

Polyplast 'C' is for use in areas of high humidity or high rainfall where the drying and cure time of the plaster is likely to be inhibited.

SYSTEM APPLICATION

1) Measure area to be plastered. At the thickness recommended (5-6mm) coverage of Polyplast will be 1lt per 2m^2 of wall.

2) Mix the Polyplast with plaster sand only at the ratio 1:10. The easiest way to do this is to use a 25lt plastic bucket - 1 bucket of Polyplast to 10 buckets of sand.

3) Mix thoroughly, mixing in a concrete mixer is best practice to get a uniform mix.

4) If viscosity of mix is too thin add more sand and if too thick add more Polyplast or water.

5) It is easiest to plaster in two steps:

   - Step 1 - using a 5mm notched trowel apply a 'scratch' coat over the entire surface. This can be done quickly. Allow to dry overnight
   - Step 2 - using a metal float apply a smooth finishing coat over the notched surface. Final finishing is best done with a wooden or rubber float using water sparingly on the surface.

   The advantages of plastering this way is that the notching provides a mechanical key for the finishing plaster (it is difficult to apply a thick plaster coat to expanded polystyrene due to the smooth finish) and the 5mm notches provide a template to control the final plaster thickness to 5-6mm.

6) As well as finishing with a rubber or wooden float, finishing can be done with a brush or Tyrolean machine.

7) Polyplast can be painted with all types of decorative paints.

8) In areas with excessively high rainfall or high humidity it is recommended that a clear sealer is applied to any unpainted Polyplast surfaces.

9) Polyplast plaster takes up to 7 days to achieve full cure and if it rains in this period some softening of the plaster will be noted. Once dry the plaster will reharden and the curing process continue.

10) When plastering in areas with high humidity the drying and curing of Polyplast may be retarded. To speed the drying process it is recommended that an alternative product Polyplast 'C' is used as this allows some cement to be used in the plaster mix without any compromise to performance. The recommended mix ratio is: 1 part Polyplast 'C': 1 part cement: 10 parts plaster sand.

PRODUCT BENEFITS

Excellent adhesion to EPS
Polyplast was formulated to provide a product that has good long term adhesion to EPS. Polyplast provides a chemical key to the polystyrene surface.

Resistance to cracking
Polyplast does not shrink crack. The elimination of cement from the mix eliminates any shrinking on drying.

As Polyplast retains some flexibility it resists cracking associated with building movement.

Easy to mix, easy to apply
Polyplast can be easily mixed by hand although mechanical mixing is recommended. The product is easy to apply by conventional plastering methods and can be straight edged if required.

Natural appearance
Polyplast takes on the colour of the plaster sand used giving a 'natural' appearance to the wall or building if left unpainted.

Water repellent
Although Polyplast is not water resistant due to the high sand loading it does have water repellent properties. If the resin to sand ratio is increased the water repellancy of the product increases.

Impact resistance
Once full cured Polyplast provides a tough, hard surface giving excellent impact resistance to the EPS.

Versatile
Although Polyplast was developed specifically for application onto EPS it can be used as a decorative finish onto cement, brick and concrete. Due to the sand filler loading and inherent flexibility it can be used as a filler coat to bridge and hide cracks.

Long lasting
The resins used in Polyplast are high quality water based acrylics which resist UV degradation and weathering.

Cost competitive
Polyplast plaster at 6mm thickness is cost competitive against normal sand cement plasters at 15-20mm thickness.

FINISHING OF PLASTERED WALLS

'Natural' appearance
Polyplast walls can be left unpainted with the finished wall taking on the colour of the plaster sand used.

To maintain a uniform finish colour ensure the plaster sand comes from the same source and that sufficient quantities are mixed in one batch to plaster an entire wall section or panel. Slight colour variances can be expected from mix to mix even when the sand comes from the same source.

Sealers
To improve the water resistance of the plaster clear sealers can be applied to Polyplast. Sealers tend to darken the plaster slightly.

Two sealer options are available from ABP Building Products:

1) Dilute Polyplast with 4 parts of water and apply by brush, roller or spray.

   Do not use a higher resin to water ratio as this will not provide a transparent film and the result will be a slightly milky finish.

2) Use Plasterseal which is a clear styrene acrylate sealer. Properties of Plasterseal:

UV Resistance:	Excellent
Water Resistance:	Excellent
Colour:	Transparent
Coverage:	10-12m^2/litre

Paint
All commonly used exterior and interior paints can be applied to Polyplast walls.